Coffee by the Tank Car Does Not Increase Risk of Coronary Heart Disease

By Peggy Peck, Managing Editor, MedPage Today
Reviewed by Zalman S. Agus, MD; Emeritus Professor at the University of Pennsylvania School of Medicine.
April 24, 2006
Also covered by: Forbes, MSNBC

MedPage Today Action Points

- Advise interested patients that this report found no association for consumption of total caffeine, decaffeinated coffee, or tea with coronary heart disease. Thus, these data provide no evidence that coffee consumption increases the risk of coronary heart disease.
- Explain to interested patients that drinking unfiltered French press or boiled coffee has been shown to increase LDL.

In fact, men and women who drank six or more cups of coffee a day for up to 20 years had a slightly lower relative risk of developing coronary artery disease than men who consumed a cup or less a day (P for trend = 0.41 for men and 0.08 for women) according to a study in the April 25 issue of Circulation, Journal of the American Heart Association.

That observation emerged from a prospective cohort study of 44,005 men enrolled in the Health Professionals Follow-Up Study and 84,488 women enrolled in the Nurses' Health Study, according to lead author Esther Lopez-Garcia, Dr.P.H. of the School of Medicine at the Universidad Autonoma de Madrid in Spain.

After adjusting for age, smoking, and other coronary heart disease risk factors, the relative risks of coronary heart disease among men were 1.0 for men who drank less than a cup of coffee a month and 1.07 (CI: 0.88 to 1.31), while for those who drank six or more cups a week the RR was 0.97 (95% CI 0.83 to 1.14).

For those who drank four to five cups daily the RR was 1.02 (95% CI 0.91 to 1.15) and for those who said they drank two to three cups a day the RR was 0.97 (95% CI 0.90 to 1.17), while for those who drank six or more cups a week the RR was 0.97 (95% CI 0.83 to 1.14).

For those who drank four to five cups daily the RR was 1.07 (CI: 0.88 to 1.31), while for those who drank six or more cups every day the RR dropped to 0.72 (95% CI 0.49 to 1.07; P for trend = 0.41).

Among women, after adjusting for other known risks, the RR for those who drank less than a cup a month was 1.0 and for those who consumed one cup a month to four a week the RR was 0.97 (95% CI 0.63 to 1.14); for women drinking a cup a day the RR was 1.02 (95% CI 0.90 to 1.17) and for those drinking two to three cups a day the RR was 0.84 (95% CI 0.74 to 0.97).

Women who drank four to five cups a day had an RR of 0.84 (95% CI 0.74 to 0.97) and for those who said that had at least six cups a day an RR of 0.87 (95% CI 0.68 to 1.11; P for trend=0.08).
Additionally, stratification of the data by smoking status, alcohol consumption and history of type 2 diabetes and body mass index did not alter the results.

Coffee consumption was, however, strongly correlated with smoking, which may explain why a study using data from Britain's National Health Service reported a link between coffee and risk of coronary heart disease. In this study more than half of the women who drank six or more cups of coffee were smokers as were 30% of the men who consumed at least a half dozen cups of coffee daily.

Other characteristics of heavy coffee drinkers were a greater likelihood of drinking alcohol and the use of aspirin. But they were less likely to drink tea, use multivitamins or vitamin E supplements, and they disdained exercise.

Although the study found no evidence to suggest an increased risk of coronary heart disease based on total caffeine consumption, said co-author Rob van Dam Ph.D., a researcher at the Harvard School of Public Health, he cautioned that in "certain genotypes" caffeine may increase the risk of coronary heart disease but said that remains to be proven.

And he said the findings apply to standard percolator or drip coffee, not to high intakes of unfiltered coffee such as the increasingly popular "French press" coffee, which produces a dark, strong cup. He said published studies have "consistently shown that drinking a lot of French press coffee increases LDL."

Coffee consumption was first measured in the Nurses' Health Study in 1980 and was first assessed in 1986 in the Health Professionals Follow-Up Study, and then reassessed every two to four years through 2000.

During that period there were 2,173 incident cases of coronary heart disease among the men and 2,254 cases among women.

Events in men included 1,449 nonfatal myocardial infarctions and 724 fatal cases of coronary heart disease. Among women there were 1,561 nonfatal MIs and 693 fatal cases of coronary heart disease.

Primary source: Circulation, Journal of the American Heart Association

Source reference:
Lopez-Garcia E et al "Coffee Consumption and Coronary Heart Disease in Men and Women A Prospective Cohort Study" Circulation 2006; 113:0000-0000